

What is claimed is:

1    1. A semiconductor memory card for storing audio information with  
2    corresponding text information and type information, the type  
3    information indicating a type of the text information, wherein the  
4    type is classified into at least (a), (b), and (c) in which the  
5    text information respectively includes a 1-byte character code  
6    sequence, a 2-byte character code sequence, and a 1-byte character  
7    code sequence and a 2-byte character code sequence.

1    2. The semiconductor memory card of Claim 1, wherein  
2                 the type information includes a first attribute and a  
3                 second attribute, the first attribute showing whether the text  
4                 information includes a 1-byte character code sequence, and the  
5                 second attribute showing whether the text information includes a  
6                 2-byte character code sequence, and  
7                 the first attribute, the second attribute, and a  
8                 combination of the two attributes respectively indicate the types  
9                 (a), (b), and (c).

1    3. The semiconductor memory card of Claim 1, wherein  
2                 the text information is stored in a text storage area,  
3                 which is a part of the semiconductor memory card, consecutively  
4                 from the start of the text storage area,  
5                 the type information is a first terminated code and a  
6                 second terminated code which are included in the text

7 information,

8               the first terminated code is stored at the start of the

9 text storage area when the text information stored in the text

10 storage area does not include a 1-byte character code sequence,

11 and is stored in the text storage area at the end of a 1-byte

12 character code sequence when the text information stored in the

13 text storage area includes the 1-byte character code sequence,

14               the second terminated code is stored in the text storage

15 area at a position immediately after the first terminated code

16 when the text information stored in the text storage area does not

17 include a 2-byte character code sequence, and is stored in the

18 text storage area at the end of a 2-byte character code sequence

19 when the text information stored in the text storage area includes

20 the 2-byte character code sequence, and

21               combinations of what is stored at the start of the text

22 storage area, a storage position of the first terminated code, and

23 a storage position of the second terminated code indicate the

24 types (a), (b), and (c).

1 4. The semiconductor memory card of Claim 1, wherein

2               the 1-byte character code sequence includes pairs of a

3 1-byte tag and a plurality of 1-byte character codes, the 1-byte

4 tag indicating a name of an item, and the plurality of 1-byte

5 character codes indicating a content of the item, and

6               the 2-byte character code sequence includes pairs of a

7 2-byte tag and a plurality of 2-byte character codes, the 2-byte  
8 tag indicating a name of an item, and the plurality of 2-byte  
9 character codes indicating a content of the item.

1 5. A recording apparatus for recording audio information onto a  
2 semiconductor memory card which can be inserted/removed into/from  
3 the recording apparatus, the recording apparatus comprising:

4 a first recording means for recording the audio  
5 information onto the semiconductor memory card; and

6 a second recording means for recording text information  
7 and type information both corresponding to the audio information  
8 onto the semiconductor memory card, wherein

9 the type information indicates a type of the text  
10 information, the type being classified into at least (a), (b), and  
11 (c) in which the text information respectively includes a 1-byte  
12 character code sequence, a 2-byte character code sequence, and a  
13 1-byte character code sequence and a 2-byte character code  
14 sequence.

1 6. The recording apparatus of Claim 5, wherein

2 the second recording means records a first attribute and  
3 a second attribute as the type information, the first attribute  
4 showing whether the text information includes a 1-byte character  
5 code sequence, and the second attribute showing whether the text  
6 information includes a 2-byte character code sequence, and the

7 first attribute, the second attribute, and a combination of the  
8 first attribute and the second attribute indicating the types (a),  
9 (b), and (c), respectively.

1 7. The recording apparatus of Claim 5, wherein  
2                   the second recording means records the text information  
3 and the type information onto a consecutive area located at the  
4 start of a text storage area, the type information being a first  
5 terminated code and a second terminated code,

6                   the second recording means records the first terminated  
7 code at the start of the text storage area when not recording a 1-  
8 byte character code sequence onto the text storage area, and  
9 records the first terminated code at the end of a 1-byte character  
10 code sequence when recording the 1-byte character code sequence  
11 onto the text storage area,

12                  the second recording means records the second terminated  
13 code immediately after the first terminated code when not  
14 recording a 2-byte character code sequence onto the text storage  
15 area, and records the first terminated code at the end of a 2-byte  
16 character code sequence when recording the 2-byte character code  
17 sequence onto the text storage area, and

18                  combinations of what is stored at the start of the text  
19 storage area, a storage position of the first terminated code, and  
20 a storage position of the second terminated code indicate the  
21 types (a), (b), and (c).

1   8. The recording apparatus of Claim 5, wherein  
2                 the 1-byte character code sequence includes pairs of a  
3         1-byte tag and a plurality of 1-byte character codes, the 1-byte  
4         tag indicating a name of an item, and the plurality of 1-byte  
5         character codes indicating a content of the item, and  
6                 the 2-byte character code sequence includes pairs of a  
7         2-byte tag and a plurality of 2-byte character codes, the 2-byte  
8         tag indicating a name of an item, and the plurality of 2-byte  
9         character codes indicating a content of the item.

1   9. A reproducing apparatus for reading out audio information from  
2         a semiconductor memory card which can be inserted/removed  
3         into/from the reproducing apparatus and reproducing the read-out  
4         audio information, the reproducing apparatus comprising:  
5                 a read-out means for reading out the audio information,  
6         text information, and type information from the semiconductor  
7         memory card, wherein the type information indicates a type of the  
8         text information, the type being classified into at least (a),  
9         (b), and (c) in which the text information respectively includes  
10        a 1-byte character code sequence, a 2-byte character code  
11        sequence, and a 1-byte character code sequence and a 2-byte  
12        character code sequence;  
13                 a reproducing means for reproducing the read-out audio  
14         information; and

15               a control means for controlling a display unit to  
16 display either a 1-byte character code sequence or a 2-byte  
17 character code sequence in accordance with the read-out type  
18 information.

1     10. The reproducing apparatus of Claim 9, wherein  
2               the type information includes a first attribute and a  
3 second attribute, the first attribute showing whether the text  
4 information includes a 1-byte character code sequence, and the  
5 second attribute showing whether the text information includes a  
6 2-byte character code sequence, and  
7               the control means determines a type of the text  
8 information based on the first attribute and the second attribute  
9 included in the type information, and allows the display unit to  
10 display a character code sequence corresponding to the determined  
11 type of the text information.

1     11. The recording apparatus of Claim 9, wherein  
2               the text information is stored in a text storage area  
3 consecutively from the start of the text storage area,  
4               the type information is a first terminated code and a  
5 second terminated code which are included the text information,  
6               the first terminated code is stored at the start of the  
7 text storage area when the text information stored in the text  
8 storage area does not include a 1-byte character code sequence,

-- 9 and is stored in the text storage area at the end of a 1-byte  
10 character code sequence when the text information stored in the  
11 text storage area includes the 1-byte character code sequence,  
12 the second terminated code is stored in the text storage  
13 area at a position immediately after the first terminated code  
14 when the text information stored in the text storage area does not  
15 include a 2-byte character code sequence, and is stored in the  
16 text storage area at the end of a 2-byte character code sequence  
17 when the text information stored in the text storage area includes  
18 the 2-byte character code sequence, and  
19 combinations of what is stored at the start of the text  
20 storage area, a storage position of the first terminated code, and  
21 a storage position of the second terminated code indicate the  
22 types (a), (b), and (c).

1 12. The reproducing apparatus of Claim 9, wherein  
2 the 1-byte character code sequence includes pairs of a  
3 1-byte tag and a plurality of 1-byte character codes, the 1-byte  
4 tag indicating a name of an item, and the plurality of 1-byte  
5 character codes indicating a content of the item, and  
6 the 2-byte character code sequence includes pairs of a  
7 2-byte tag and a plurality of 2-byte character codes, the 2-byte  
8 tag indicating a name of an item, and the plurality of 2-byte  
9 character codes indicating a content of the item.